

which is a blank, which itself is constituted at least from abrasive grains, and assembling these at least two layers of constituent.

24. (New) A process according to claim 23, wherein the blank comprises at least one layer of constituent without abrasive grains, especially a reinforcing sheet.

comp prod blank
 (25) (New) A process according to claim 23, wherein, to make the blank, an abrasive product formed from abrasive grains provided with a coating constituted by a binder is poured into a mold, a level of abrasive product is adjusted to a desired value, and the abrasive product is compressed.

comp prod blank
 (26) (New) A process according to claim 24, wherein, to make the blank, an abrasive product formed from abrasive grains provided with a coating constituted by a binder is poured into a mold, a level of abrasive product is adjusted to a desired value, at least one other layer of constituent without abrasive grains, especially a reinforcing sheet, is deposited, and a resulting composition is compressed.

27. (New) A process according to claim 23, wherein layers of constituent comprising the blank are laid successively one on top of the other to constitute a stack, then the stack is heated and subsequently the stack is pressed.

28. (New) A process according to claim 23, wherein the layers of constituent are superposed along an assembly line, which is equipped with layer-laying stations and along which the layers being superposed are made to travel in a form of stacks, stocks of stacks being constituted in at least certain stations, from which the stocked stacks are taken one by one to superpose thereon a new layer of constituent, and the stack provided with its new layer being evacuated from the station toward the following station.

29. (New) An installation for making grinding wheels provided with an abrasive product, comprising at least one machine for making blanks from abrasive grains, an

mixing machine

assembly line equipped with stations disposed in succession, at a position of which layers intended to constitute the grinding wheel and comprising at least one blank obtained from the blank-making machine are superposed to constitute a stack of superposed layers, followed by a heating station where the stack of layers is heated, and with at least one pressing machine for compressing the stack, this pressing machine having a form of a pressing station positioned at one of an end of the assembly line or downstream from the assembly line.

(30) (New) An installation according to claim 29, wherein the blank-making machine is provided with a production carousel equipped with molds and specialized working stations comprising a station for pouring an abrasive, a leveling station, a pressing station, a discharge station, a cleaning station, and a storage table for storage of produced blanks.

31. (New) An installation according to claim 29, wherein the assembly line is provided with an endless conveyor that carries fixed plates configured to receive removable plates configured to receive stacks of elements constituting the grinding wheel.

32. (New) An installation according to claim 29, wherein the assembly line is provided with a station for laying rings, stations for laying layers of constituent, and a heating station.

33. (New) An installation according to claim 29, wherein the assembly line is provided with a least one station comprising a temporary stocking device. Ⓟ

(34) (New) An installation for production of grinding wheels, comprising:
a station for filling a mold with at least one layer of constituent from which at least one blank is formed;
a machine for pressing the at least one layer of constituent contained in the mold in order to form the blank;

an assembly station designed to form a stack of superposed layers from at least one blank and at least one other layer of constituent;

a pressing machine for compressing the stack and forming the grinding wheel.

(35) (New) An installation according to claim 34, wherein the stations and machines are disposed around a production carousel on which at least one mold is fixed.

(36) (New) An installation according to claim 35, wherein the production carousel is divided into sectors corresponding to working stations for consecutive operations, and each sector comprises at least one position for a mold and at least one position on which one or more layers of constituent of the grinding wheel are configured to be disposed.

(37) (New) An installation according to claim 36, further comprising a production carousel divided into a plurality of sectors, each sector corresponding respectively to the working stations in which following consecutive operations are performed:

deposition and leveling of abrasive grains coated with a binder in a mold situated at a first position of the sector, especially by means of a tool, and deposition of at least one layer of component, especially a protective layer, at a second position of the sector,

deposition of at least one layer of component, especially a reinforcing sheet, on the abrasive grains in the mold, and deposition of at least one layer of component, especially a protective sheet and/or a reinforcing sheet, at the second position,

pressing by the pressing machine designed to form at least one blank from the layers of constituent contained in at least one mold,

constitution of the stack, which takes at least one blank from the first position to lay it at the second position and thus constituting at least one stack formed by the layers of constituent disposed beforehand in a location and by the at least one blank,

pressing the stack situated at position in order to consolidate a grinding wheel by the pressing machine,

evacuation of the grinding wheel.

38. (New) An installation according to claim 29, wherein the pressing machine is provided with a carousel equipped with jack-operated presses provided with a movable tool assembly comprising a mold provided with a bottom and a side wall mounted slidingly around the bottom, and with a mold support, which is fixed to a piston of the jack and to which the bottom and the side wall are interlocked by spring devices, which are designed such that, during extension of the jack, they subject the stack to a pressing force while surrounding the stack with the side wall and, during retraction of the jack, they initiate start of an upward movement of the side wall while the bottom is still against the stack, then the upward movement of the bottom while the side wall continues its upward movement.

39. (New) An installation according to claim 29, wherein the pressing machine is provided with presses, each equipped with a support for a removable plate configured to receive a stack of layers of constituents of the grinding wheel, and with a cam surface over which rollers travel, each roller interlocked with a support to raise the support for evacuation of the grinding wheel and reloading of the removable plate on the assembly line.

40. (New) A grinding wheel provided with an abrasive product, produced by the process according to claim 23, comprising at least one reinforcing layer pierced by holes in which part of the abrasive product is distributed, which is formed from abrasive grains.

41. (New) A grinding wheel according to claim 40, further comprising a central ring.

42. (New) A grinding wheel according to claim 40, further comprising at least one layer of abrasive product, and each layer of abrasive product sandwiched between two reinforcing layers.

43. (New) A grinding wheel according to claim 40, wherein a thickness of the grinding wheel is less than or equal to 2 mm, or even less than or equal to 1 mm.

44. (New) A factory or factory section for production of grinding wheels, provided with an abrasive product, wherein the factory or the factory section is divided into at least first and second zones, and the first zone is designed for production of blanks constituted at least from abrasive grains and the second zone is configured for assembly of at least one blank and at least one other layer of constituent without abrasive grains in order to constitute a grinding wheel.

IN THE ABSTRACT OF THE DISCLOSURE

Please add the following new Abstract on a separate sheet.